

Instructions for Use: TOSI®

Brand Name of Product	TOSI®
Generic Name of Product	Test object surgical instrument
Product Code Number(s)	WT101, WT101-30, WT102
Purpose of Product	To challenge the cleaning efficacy of mechanical cleaning equipment and proteolytic
	detergents.
<b>Range of Applications for Product</b>	Automated instrument washers
	Ultrasonic cleaners
	• Cart Washer on the instrument cycle.
	• Proteolytic detergents in a water bath.
Key Specifications of Product	Comprised of blood proteins in proportionate to human blood:
	$\circ$ Water soluble hemoglobin and albumin – 95%.
	$\circ$ Water insoluble fibrin – 5%.
	• Soil on a stainless-steel substrate.
	• Soil hosted inside a transparent, plastic holder, which provides a physical
	challenge (i.e., areas unexposed to direct spray action), such as the box lock.

Shipping & Storage	
Shipping Conditions &	N/A
Requirements	
Storage Conditions	Room temperature
	• Not in direct sunlight.
Packaging Contents	Thirty (30) TOSI <sup>®</sup> coupons per box.
Shelf Life	• Eighteen (18) months from date of manufacture.
	Consult package for expiration date.

	Instructions for Using Product	
Description of Use(s)	For challenging the cleaning efficacy of mechanical cleaning equipment and proteolytic detergents.	
Preparation for Use	<ul> <li>TOSI<sup>®</sup> is designed to clip to a wire mesh basket. If one is not available, use a WT102 rack and place into a basket.</li> <li>For routine testing described in <i>Steps for Use of Product</i>, run procedure in an empty washer.</li> <li>To test with a full load, see this document: <u>Example Policy for Daily Testing Medical Automatic Washer with TOSI_2021-08-02.pdf</u></li> <li>In some facilities, particularly over a weekend, a "dummy" cycle may need to be run prior to the test cycle to ensure proper delivery of hot water and cleaning agents.</li> </ul>	
Diagrams (drawings, pictures)	Location A - Multi-Level Rack Place one (1)-TOSI <sup>®</sup> on each level. Arrange so that TOSI <sup>®</sup> is in the center of the radius of the spinner arm.	

	For Ultrasonic Cleaners:
	Multi-Level Bays Multi-Level Sonic (3) X X X
	Multi-Level Dual Tank/Bay (6)       X     X       X     X       X     X       X     X       Routine Testing (e.g., daily testing)
Steps for Use of Product	<ul> <li>Routine Monitoring of Washer Performance (For additional test procedures with the TOSI®, please visit: <a href="http://www.hmark.com/tosi.php">http://www.hmark.com/tosi.php</a>) </li> <li>Open the TOSI® package by tearing across the precut notch at the top of the TOSI® package; remove the TOSI® coupon from the package</li> <li>Secure one (1)-TOSI® per level in an empty basket and clip the TOSI® inside on the bottom of the wire mesh basket. <ul> <li>a. Place one on each shelf.</li> <li>b. In multiple shelf units, follow the diagram above and examples below: <ul> <li>i. Three (3) Shelf Unit = Three (3) TOSI®</li> <li>ii. Four (4) Shelf Unit = Four (4) TOSI®</li> <li>iii. One (1)-Level Tunnel Washer = One (1)-TOSI®</li> </ul> </li> <li>Process using the <i>instrument</i> wash cycle.</li> <li>Examine the TOSI® for visual cleanliness. Compare the test to the I (Prod Code No. WT-104) TOSI® Interpretation chart, scale (0–5)</li> <li>Record results on a log sheet.</li> </ul> </li> <li>Ultrasonic &amp; Blood Soil Test <ul> <li>Make sure the ultrasonic cleaner has been degassed prior to running the test and has recommended cleaning solution in the tank/bath.</li> <li>Place the TOSI® in an empty ultrasonic tray/basket (in the middle of the</li> </ul> </li> </ul>
	<ul> <li>tray/basket) and place the tray/basket in the ultrasonic cleaner.</li> <li>If using a multi-level sonic, place a minimum amount of one TOSI<sup>®</sup> in each basket on each level of the multi-level sonic, in the middle of the tray/basket.</li> <li>Run the ultrasonic through its normal cycle. (Note: Record the cycle)</li> <li>Record test results at the end of the cycle.</li> </ul>
Interpretation of Results	<ul> <li>If less than optimal results were obtained (1–5), adjust the equipment utilizing the <u>chart</u> (WT104) as a guide. Typical failures can be caused by:</li> <li>Clogged spinner arms.</li> <li>Worn spray arm bushings.</li> <li>Insufficient detergent due to empty containers.</li> <li>Detergent pump failure or clogged delivery tubing.</li> <li>Poorly functioning water pump.</li> <li>Incorrect water temperature.</li> <li>Incorrect cycle settings.</li> </ul>
Contraindications of Test Results	<ul> <li><i>Tiny Red Spot-on TOSI® Plate</i>: Rarely, but possible, a slight imperfection in the stainless-steel plate could oxidize resulting in a little red speck. This could be confused for hemoglobin soil on the TOSI<sup>®</sup>. The easiest way to check is with mechanical (manual) action (i.e., gloved hand, preferably with the aid of an instrument cleaning brush) under water. If the speck remains, then it is not the TOSI<sup>®</sup> blood soil.</li> <li><i>Ghosting on the TOSI<sup>®</sup> Plate</i>: A whitish-stain observed on the TOSI<sup>®</sup> plate could be confused with fibrin protein. This usually happens at a facility having hard water. If allowed to dry and the TOSI<sup>®</sup> is read at that point, hard water staining may be observed on the TOSI<sup>®</sup> plate. The simplest method is to gently submerge the TOSI<sup>®</sup> plate in a bath of water. If the stain "disappears" when wetted this indicates a non-test soil residue (likely hard water minerals or detergent) and not the blood soil.</li> </ul>

	<ul> <li>Ultrasonic Cycle (Residual Soil Re-deposited on TOSI<sup>®</sup> Plate): In ultrasonic washers that do not have a distinct rinsing stage within the same tank (i.e., draining of cleaning solution and filling with a fresh bath of water), it is possible a small amount of TOSI<sup>®</sup> soil can become trapped underneath the clear plastic holder. This soil can then be re-deposited upon the TOSI<sup>®</sup> coupon. To determine this, simply give a gentle agitation of the TOSI<sup>®</sup> within a bath. Any soil that was detached during the cycle should be rinsed away. If soil remains attached to the surface of the TOSI<sup>®</sup> after this rinsing procedure, then this indicates sub-optimal cleaning.</li> </ul>
Documentation	• Record all changes and adjustments to the washer according to the results found from the TOSI <sup>®</sup> test relative to the chart scale. Utilize the supplied log sheet.
	<ul> <li>Report any unsatisfactory results to the proper management for corrective action according to the policy of your facility.</li> </ul>
Special Warnings and Cautions	N/A
Disposal	Since the TOSI® is run in mechanical cleaning equipment, there is a chance for
	contamination. Therefore, it is recommended to dispose of the used TOSI® in a biohazard
	container in compliance with facility protocols.

Reprocessing Instructions	
Point of Use	N/A
Preparation for Decontamination	N/A
Disassembly Instructions	N/A
Cleaning – Manual	N/A
Cleaning – Automated	N/A
Disinfection	N/A
Drying	N/A
Maintenance, Inspection, and Testing	N/A
<b>Reassembly Instructions</b>	N/A
Packaging	N/A
Sterilization	N/A
Storage	N/A
Additional Information	Follow local and national standards for cleaning verification testing frequency and
	procedures.

<b>Related Healthmark Products</b>	Weekly Washer Test Kits
Other Product Support Documents	Automated Washer Technical Bulletin
	Blood Coagulation Characteristics
	Evaluation of Cleaning Procedures
	Instructions for Automated Washer Tests
	Instructions for Ultrasonic and Lumen Washers
	Sample Policy for Daily Inspection and Weekly Testing
	Support for Cleaning Verification with the TOSI <sup>®</sup>
	TOSI <sup>®</sup> Glossary of Terms
	TOSI® Troubleshooting Guide and Log Sheet
	TOSI <sup>®</sup> Troubleshooting Wall Chart
	TOSI <sup>®</sup> Validation Study
	Updated Standards and Guidelines Supporting Cleaning Verification
Reference Documents	1. ANSI/AAMI ST79
	2. Blood as a Soil on Surgical Instruments; Cleaning Profile, Cleaning, Detection;
	M.Pfeifer, Zentr Steril 1998;6 (6);381-385
	3. Standardized Test Soil Blood 1: Composition, Preparation, Application; M.Pfeifer,
	Zentr Steril 1998;6 (6);304-310
	4. OSAKA REPORT; Importance of the cleaning test; University of Osaka, Department
	of Medicine, Ryo Fushimi, 2000.
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